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EXAMINER

HAN, CLEMENCE S

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 06/22/2004

16

Please find below and/or attached an Office communication concerning this application or proceeding.

16

Office Action Summary

Application No.

09/649,478

Applicant(s)

CHEWNING ET AL.

Examiner

Clemence Han

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-45 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 2-45 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Information Disclosure Statement

1. An initialed and dated copy of Applicant's IDS form 1449, Paper No. 13, is attached to the instant Office action.

Response to Amendment

2. The declaration filed on April 9, 2004 under 37 CFR 1.131 is sufficient to overcome the Wang et al. reference.

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claim 2-6, 22, 23, 27-30 and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Iwase et al. (US Patent 6,226,263).

In regarding to claim 2, Iwase teaches a method for defining a path through an overall network for communications service between a unit and a service provider, comprising: storing a topology of an overall network including elements and links among the elements (Column 1 Line 47-49); receiving a service order for provision of the communications service between the unit and the service provider (Column 2 Line 60); and using information from the service order with the topology to select particular elements from the elements of the overall network and

to select particular links between the particular elements as the path for the communications service through the overall network (Column 4 Line 22–24).

In regarding to claim 3, Iwase teaches using the information from the service order with the topology comprising mapping the information from the service order onto the topology (Column 3 Line 62–66).

In regarding to claim 4, Iwase teaches the path comprising a permanent virtual circuit (PVC) (Column 3 Line 17).

In regarding to claim 5, Iwase teaches assigning an identifier to the path (Column 3 Line 22).

In regarding to claim 6, Iwase teaches the identifier comprising a unique identifier (Column 1 Line 59–64).

In regarding to claim 22, Iwase teaches the overall network comprising an asynchronous transfer mode (ATM) network; and wherein using the information from the service order with the topology comprises using the information to select a particular element from the ATM network as a part of the path for the communications service through the overall network (Column 1 Line 9–12).

In regarding to claim 23, Iwase teaches the asynchronous transfer mode (ATM) network comprising an ATM switch; and wherein using the information to select the particular element from the ATM network comprises using the

information to select the ATM switch as the part of the path (Column 1 Line 44–47).

In regarding to claim 27, Iwase teaches a system for defining a path through an overall network for provision of communications services between a unit and a service provider, comprising: topology of elements and links linking the elements of the overall network (Column 1 Line 47–49); information about the unit and about the communications services to the unit (Column 2 Line 60); and a mapper for mapping the information onto the topology to obtain particular elements from the elements of the overall network and to obtain particular links between the particular elements from the links linking the elements of the overall network, whereby the particular elements and the particular links between the particular elements constitute the path for communications services between the unit and the service provider (Column 4 Line 22–24).

In regarding to claim 28, Iwase teaches the path comprising a permanent virtual circuit (PVC) (Column 3 Line 17).

In regarding to claim 29, Iwase teaches assigning an identifier to the path (Column 3 Line 22).

In regarding to claim 30, Iwase teaches the identifier comprising a unique identifier (Column 1 Line 59–64).

In regarding to claim 32, Iwase teaches the overall network comprising an asynchronous transfer mode (ATM) network (Column 1 Line 9–12) including an ATM switch; wherein the topology of the elements comprises the ATM switch; and wherein the particular elements comprise the ATM switch so the ATM switch is included in the path (Column 1 Line 44–47).

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
6. Claim 7, 8 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwase et al. in view of Chiu et al. (US Patent 6,597,689).

In regarding to claim 7, Iwase teaches a method for defining a path through an overall network for communications service between a unit and a service provider, comprising: storing a topology of an overall network including elements and links among the elements (Column 1 Line 47–49); receiving a service order for provision of the communications service between the unit and the service provider (Column 2 Line 60); and using information from the service order with the topology to select particular elements from the elements of the overall network and to select particular links between the particular elements as the path for the communications service through the overall network (Column 4 Line 22–24).

Iwase, however, does not teach explicitly prior to storing the topology, creating the topology of the overall network. Chiu teaches prior to storing the topology, creating the topology of the overall network (Column 55 Line 37–50). It would have been obvious to one skilled in the art to modify Iwase to create the topology of the overall network prior to storing the topology as taught by Chiu in order to maintain the current topology of the network.

In regarding to claim 8, Chiu teaches the overall network comprising a digital subscriber line (DSL) network or an asynchronous digital subscriber line (ADSL) network; and wherein creating the topology of the overall network comprising creating the topology to include the DSL network or the ADSL network (Column 6 Line 33–40).

In regarding to claim 33, Chiu teaches the overall network comprising a telecommunications network including a central office 100 serving the unit; wherein the topology comprises the central office; and wherein the particular elements comprise the central office so the central office is included in the path.

7. Claim 9–18 and 34–42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwase et al. in view of Chiu et al. and further in view of Waters et al. (US Patent 5,832,069).

In regarding to claim 9, Iwase teaches a method for defining a path through an overall network for communications service between a unit and a service provider, comprising: storing a topology of an overall network including elements and links among the elements (Column 1 Line 47–49); receiving a service order for provision of the communications service between the unit and the service provider (Column 2 Line 60); and using information from the service order with the topology to select particular elements from the elements of the overall network and to select particular links between the particular elements as the path for the communications service through the overall network (Column 4 Line 22–24).

Iwase, however, does not teach explicitly prior to storing the topology, creating the topology of the overall network. Chiu teaches prior to storing the topology, creating the topology of the overall network (Column 55 Line 37–50). It would have been obvious to one skilled in the art to modify Iwase to create the topology of the overall network prior to storing the topology as taught by Chiu in order to maintain the current topology of the network. Iwase in view of Chiu, however, does not teach explicitly creating the topology comprising modeling the elements and modeling the links among the elements. Waters teaches creating the topology comprising modeling the elements and modeling the links among the elements (Column 6 Line 30–31). It would have been obvious to one skilled in the art to

modify Iwase in view of Chiu to model the elements and modeling the links among the elements as taught by Waters in order to estimate cost (Column 6 Line 31–36).

In regarding to claim 10 and 34, Waters teaches creating the topology comprising creating the topology to include respective locations of the elements (Column 12 Line 46).

In regarding to claim 11 and 35, Waters teaches a location of an element comprising a building location; and wherein creating the topology to include the respective locations of the elements comprises creating the topology to include the building location of the element (Column 12 Line 46).

In regarding to claim 12 and 36, Waters teaches a building location of the element comprising a common location language identifier (CLLI), a network site, and a local access and transport area (LATA) name; and wherein creating the topology to include the building location comprises creating the topology to include the CLLI, the network site, and the LATA name (Column 12 Line 28–30).

In regarding to claim 13 and 37, Waters teaches creating the topology comprising creating the topology to include respective configurations of the elements (Column 12 Line 39–48).

In regarding to claim 14 and 38, Chiu teaches retrieving a configuration of an element from the element; and including the retrieved configuration of the element in the topology (Column 55 Line 51–52).

In regarding to claim 15 and 39, Waters teaches creating the topology comprising creating the topology to include respective locations of the links (Column 10 Line 57 – Column 11 Line 21).

In regarding to claim 16 and 40, Waters teaches a link connecting at least two elements with each element having a location; and wherein creating the topology to include the respective locations of the links comprises creating the topology to include an association among the link, the at least two elements, and each respective location of the at least two elements (Column 10 Line 57 – Column 11 Line 21).

In regarding to claim 17 and 41, Waters teaches creating the topology comprising creating the topology to include respective configurations of the links (Column 10 Line 43–44).

In regarding to claim 18 and 42, Waters teaches wherein a configuration of a link comprises a common location language identifier (CLLI) (Column 12 Line 29), a circuit identifier (Column 10 Line 43–44), and a circuit type (Column 10 Line 44); and wherein creating the topology to include the respective

configurations of the links comprises creating the topology to include the CLLI, the circuit identifier, and the circuit type for the link.

8. Claim 19–21 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwase et al. in view of Dziedzic (US Patent 6,166,895).

In regarding to claim 19, Iwase teaches a method for defining a path through an overall network for communications service between a unit and a service provider, comprising: storing a topology of an overall network including elements and links among the elements (Column 1 Line 47–49); receiving a service order for provision of the communications service between the unit and the service provider (Column 2 Line 60); and using information from the service order with the topology to select particular elements from the elements of the overall network and to select particular links between the particular elements as the path for the communications service through the overall network (Column 4 Line 22–24).

Iwase, however, does not teach explicitly teaches the overall network comprising a digital subscriber line (DSL) network or an asynchronous digital subscriber line (ADSL) network; and wherein creating the topology of the overall network comprising creating the topology to include the DSL network or the ADSL network. Dziedzic teaches the overall network comprising a digital subscriber line (DSL) network or an asynchronous digital subscriber line (ADSL) network; and

wherein creating the topology of the overall network comprising creating the topology to include the DSL network or the ADSL network (Column 2 Line 4–9). It would have been obvious to one skilled in the art to modify Iwase to be used in DSL or ADSL network as taught by Dziedzic in order to maximize returns on investments in the current infrastructure (Column 2 Line 2– 4).

In regarding to claim 20, Dziedzic teaches the digital subscriber line (DSL) network or the asynchronous digital subscriber line (ADSL) network comprising a digital subscriber line access multiplexer (DSLAM); and wherein using the information to select the particular element from the DSL network or the ADSL network comprises using the information to select the DSLAM 90 as the part of the path (Column 2 Line 19–49).

In regarding to claim 21, Dziedzic teaches the digital subscriber line (DSL) network or the asynchronous digital subscriber line (ADSL) network comprising a mini-ram (MR); and wherein using the information to select the particular element from the DSL network or the ADSL network comprises using the information to select the MR 90 as the part of the path (Column 6 Line 5).

In regarding to claim 31, Dziedzic teaches the overall network comprises a digital subscriber line (DSL) network or an asynchronous digital subscriber line (ADSL) network (Column 2 Line 4–9) including a digital subscriber line access

multiplexer (DSLAM) (Column 2 Line 19–49) and a mini-ram (MR) (Column 6 Line 5); wherein the topology of the elements comprises the DSLAM and the MR; and wherein the particular elements comprise the DSLAM and the MR so the DSLAM and the MR are included in the path.

9. Claim 24, 25, 43 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwase et al. in view of Yokell (US Patent 6,507,870).

In regarding to claim 24 and 43, Iwase teaches a method for defining a path through an overall network for communications service between a unit and a service provider, comprising: storing a topology of an overall network including elements and links among the elements (Column 1 Line 47–49); receiving a service order for provision of the communications service between the unit and the service provider (Column 2 Line 60); and using information from the service order with the topology to select particular elements from the elements of the overall network and to select particular links between the particular elements as the path for the communications service through the overall network (Column 4 Line 22–24). Iwase, however, does not teach the service order comprising a telephone number, an identifier for the service provider, and a universal service order code (USOC). Yokell teaches the service order comprising a telephone number (Column 23 Line 34), an identifier for the service provider (Column 23 Line 50),

and a universal service order code (USOC) (Column 24 Line 59). It would have been obvious to one skilled in the art to modify Iwase to have such detailed service order as taught by Yokell in order to identify both the requester and the requested service.

In regarding to claim 25 and 44, Iwase teaches a circuit identifier for the service provider and a virtual path identifier (VPI) for the service provider (Column 3 Line 22).

10. Claim 26 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwase et al., Chiu et al., Waters et al., Dziedzic and Yokell et al. as applied to claims 2–24 and 27–44 above respectively. All the limitations claimed herein are already discussed in the rejections of claims 2–24 and 27–44 respectively.

Response to Arguments

11. Applicant's arguments, see page 2, filed April 9, 2004, with respect to the rejections of claims 2–10, 13–17, 19, 20, 22, 23, 27–30, 32–34 and 37–41 under 35 U.S.C. 102(e) and claims 11, 12, 18, 21, 24–26, 31, 35, 36 and 42–45 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Iwase et al. and Chiu et al..

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to the network management in general.

U.S. Patent 5,745,694 to Egawa et al.

U.S. Patent 6,510,139 to Yoshida

U.S. Patent 6,667,956 to Beshai et al.

U.S. Patent 6,662,221 to Gonda et al.


U.S. Patent 6,643,290 to Glade

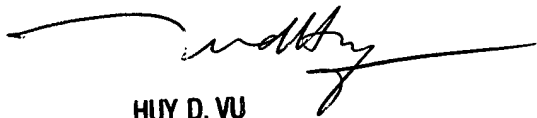
U.S. Patent 5,958,016 to Chang et al.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clemence Han whose telephone number is (703) 305-0372. The examiner can normally be reached on Monday-Friday 8 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (703) 308-6602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Clemence Han
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